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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,170	11/19/2003	Mirko Danz	DANZ-3	6001

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EXAMINER	
BARNES, CRYSTAL J	

ART UNIT	PAPER NUMBER
2121	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/717,170	DANZ ET AL.	
	Examiner	Art Unit	
	Crystal J. Barnes	2121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 July 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,4 and 6-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,4 and 6-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection tc the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The following is a Final Office Action in response to the Amendment received on 17 July 2007. Claims 1, 3, 4 and 7 have been amended. Claims 2, 5, 15 and 16 have been cancelled. Claims 1, 3, 4 and 6-14 remain pending in this application.

Response to Arguments

2. Applicant's arguments filed 17 July 2007 have been fully considered but they are not persuasive. The Eidson et al. reference discloses any one or more of the components 210-240 or any other node that can access the global communication path such as a separate computer system may obtain these broadcasted packets and use the information contained therein to construct a topological map of the materials handling system 200. For example, a monitoring computer system that can access the global communication path may implement specialized software that constructs a topological map the materials handling system 200 in response these packets broadcasted on the global communication path. Periodic broadcasting of this information enables a monitoring computer system to obtain updated system topology and to determine whether any of the

components have failed by failing to broadcast the information. (See column 8 lines 18-32.) The process for determining system topology described above may be repeated periodically. These periodic updates enables the components of a system, and any external monitors or interfaces to the system, to obtain a current state of the system. This enables components to locally detect errors or to institute changes in local behavior resulting from the disappearance or appearance of paths in the system. It also allows the semantics of paths to be changed dynamically. (See column 11 lines 41-48.)

Claim Rejections - 35 USC § 112

3. The amendment to the claims was received on 17 July 2007. These corrections are acceptable.

Claim Rejections - 35 USC § 101

4. The amendment to the claims was received on 17 July 2007. These corrections are acceptable.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 3, 4, 6-9 and 11-14 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 6,078,847 to Eidson et al.

As per claim 1, the Eidson et al. reference discloses a project design method for automating a control sequence in a configurable system with a plurality of components, the components (see column 2 lines 24-29, "components") capable of exchanging at regular time intervals during the control sequence information (see column 2 lines 14-21, "material handling") with another of the components ("components") via communication relationships (see column 2 lines 24-29, "input paths 1-n, output paths 1-m"), comprising the steps of: with the system ("material handling system"), based on a topology (see column 2 lines 33-38, "topological map") and a functionality (see column 7 lines 34-38, "input functions, output functions") of the components ("components") communicated to the system by a user input (see

column 8 lines 27-31, "updated system topology"), selecting exactly one system project design (see column 4 lines 30-33, "appropriate components") from a plurality of system project designs ("basic components 22-30, 90, 95"), with the selected system project design ("appropriate components") containing exactly one component project design ("merge component 22") for each component ("components") of the system ("material handling system"); and designing each of the components ("components") in the system ("material handling system") according to the corresponding component project design ("merge component 22"); and causing each of the components (see column 2 lines 39-42, "self-organizing elements 14") to implement the communication relationships ("input paths 1-n, output paths 1-m") to the other components ("components") according to the component project design ("merge component 22") of the particular component ("self-organizing elements 14").

As per claim 3, the Eidson et al. reference discloses the user input ("updated system topology") for at least one component ("components") includes a default value of a mechanical (see column 13 lines 6-8, "mechanical topology") and/or electrical functionality of the at least one component ("components").

As per claim 4, the Eidson et al. reference discloses the user input ("updated system topology") for at least one component ("components") includes a default value to cooperate mechanically (see column 13 lines 6-8, "mechanical topology") or electrically, or both, with at least one additional component ("components").

As per claim 6, the Eidson et al. reference discloses the system ("material handling system") automatically determines the topology ("topological map") of the components ("components") and aids a user in determining the system project design ("appropriate components").

As per claim 7, the Eidson et al. reference discloses a central unit (see column 8 lines 54-56, "component 220") reads component codes ("bar code") from the components ("items"), said component codes ("bar code") separately identifying the components ("items"), and determines the components ("items") based on the component code ("bar code").

As per claim 8, the Eidson et al. reference discloses the plurality of system project designs ("basic components 22-30, 90, 95") is centrally stored and the component project designs ("appropriate components") of the selected system project designs ("basic components 22-30, 90, 95") are transmitted to the components ("components").

As per claim 9, the Eidson et al. reference discloses the plurality of system project designs (see column 4 lines 30-33, "appropriate components") is stored in a central unit ("self-organizing") of the system ("materials handling system").

As per claim 11, the Eidson et al. reference discloses the component project designs (see column 4 lines 30-33, "basic components 22-30, 90, 95") are stored in the corresponding components ("appropriate components"), and wherein a central unit ("self-organizing") transmits selection commands to the components ("appropriate components") for selecting the component project designs ("basic components 22-30, 90, 95") according to the selected system project design ("basic components 22-30, 90, 95").

As per claim 12, the Eidson et al. reference discloses the components ("components") activate the communication relationships ("input paths 1-n, output paths 1-m") established by the components ("components") based on a common activation command (see column 4 lines 33-36, "once connected").

As per claim 13, the Eidson et al. reference discloses the communication relationships ("input paths 1-n, output paths 1-m") conform to the IRTE protocol (see column 6 lines 18-21, "Ethernet ... protocol").

As per claim 14, the Eidson et al. reference discloses at least the topology (see column 8 lines 18-23, "topological map") of the components ("components") is made available to an application program (see column 8 lines 28-31, "monitoring computer system") for the configurable system ("updated system topology").

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,078,847 to Eidson et al. in view of USPN 6,885,641 B1 to Chan et al.

As per claim 10, the Eidson et al. reference does not expressly disclose the plurality of system project designs is stored external to the system.

The Chan et al. reference discloses

(see column 1 lines 63-67, "... require user knowledge and input of the configuration, customization, and capacity of the various computer and network

components (e.g., processors, adapters, buses, internal and external storage, input/output microprocessors, channels, and local and wide area links), ...")

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the self-organizing materials handling system taught by the Eidson et al. reference to include the internal and external storage taught by Chan et al.

One of ordinary skill in the art would have been motivated to modify the self-organizing materials handling system to include the internal and external storage to maintain and update any of the components that have failed to broadcast information.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art with respect to process control systems in general:

USPN 7,093,247 B2 to Ashworth et al.

USPN 7,051,309 B1 to Crosetto

USPN 7,013,328 B2 to Monse et al.

USPN 6,457,050 B1 to Cowan et al.

USPN 5,796,736 to Suzuki

US Pub. No. 2004/0139238 A1 to Luhrs

US Pub. No. 2003/0229482 A1 to Cook et al.

US Pub. No. 2003/0131078 A1 to Scheer et al.

US Pub. No. 2003/0061266 A1 to Ouchi

US Pub. No. 2003/0051049 A1 to Noy et al.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the

advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Crystal J. Barnes whose telephone number is 571.272.3679. The examiner can normally be reached on Monday-Friday alternate Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 571.272.3687. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Crystal J Barnes

CRYSTAL J. BARNES
PRIMARY PATENT EXAMINER
CJB
September 24, 2007